Full name: _____

Teacher: _____

Due date: _____

Orange High School

Year 12 Numeracy - Adjusted

Task 2 Assignment 2023

Outcomes Assessed

N6-2.3: chooses and applies efficient strategies to analyse and solve everyday problems involving data, graphs, tables, statistics, and probability

N6-2.4: chooses and applies efficient strategies to analyse and solve everyday problems involving money and finance

N6-2.5: chooses and applies efficient strategies to analyse and solve everyday problems involving location, space and design

N6-3.1: chooses and uses appropriate technology to access, organise and interpret information in a range of practical personal and community, workplace and employment, and education and training contexts

Weighting **25%**	**Due:** This assignment is due to your classroom teacher in Term 1 Week 8 on Thursday 16th March.

Penalties as per assessment booklet

Failure to submit the assignment within the negotiated timeframe may result in an N-award in Numeracy

Numeracy Year 12 Assessment Task - Adjusted

Nature of the task

In this task you will explore the implications of choosing to relocate to another town for a new job. You will consider finances, location, the environment, and climate to decide whether you will take up the new adventure.

There are six parts to the task. Answer all questions in each part.

- Show all of your calculations.
- Explain your reasoning, including references to any websites you access.
- Submit your work as either a hard copy or as a digital file.

Approximately three hours of independent preparation in addition to class time will be required to develop a response.

Hand-in components of this task

Students will be required to complete the questions either in the space provided or on separate A4 sheets of paper. They will need to hand in a hard copy of their calculations which addresses all the criteria outlined in this booklet.

Assessment criteria

The assessment of your response to this task will be based on:

- the accuracy and relevance of your calculations
- the application of numeracy knowledge and skills to this task
- your numerical reasoning and mathematical thinking (NRMT)
- your use of technology to investigate and solve problems.

Imagine yourself fully qualified and ready to begin full-time work in a job that interests you.

Part A: Calculating your pay

1. Locate a job advertisement for a job similar to the one you would like to have in the future and provide a copy of the job advertisement.
2. Identify and/or calculate the weekly, fortnightly and annual pay for the job, showing all calculations. If the job advertisement does not include the pay details, use the Fair Work Pay Calculator to find the pay rate for this job.
3. Use the Australian Taxation Office tax table to:
    a. calculate how much PAYG (Pay As You Go) tax should be deducted from your pay each fortnight. You will be using the tax-free threshold column.
    b. calculate your net fortnightly pay after tax has been deducted.

Part B: Location

4. Find a rental property in the town you have chosen and provide a copy of the property advertisement and a photo of the property. For the purposes of this task, we will assume the rental property is fully furnished, meaning that you don't need to purchase furniture.
5. Identify the:
    a. type of property – eg house, unit, etc
    b. address
    c. weekly rent.
6. Calculate the amount of the bond. If not mentioned in the advertisement, assume the bond is equivalent to four weeks' rent.
7. Locate and include a copy of the local map. Mark and label the following features:
    a. the rental property
    b. your new workplace
    c. the nearest supermarket
    d. the nearest medical centre
    e. two other places of interest to you.
8. Calculate the time it would take to travel by car from your current home to the rental property. Consider rest times and re-fuelling times in your calculations if necessary.
9. Give directions for a visitor from out of town to be able to go from the rental house to the supermarket. Be clear and concise in your explanation.

Part C: Preparing for the new location

10. Create a climate graph for the new location. Include the minimum and maximum temperatures, and the average monthly rainfall, for each month of the year. Climate data can be accessed online at the Australian Government Bureau of Meteorology.
11. Describe what you would expect the weather to be like during the winter and summer months. Describe the impact this may have on your lifestyle and activities.
12. Identify any clubs that you could join or activities that you could participate in if you were to move to this town.

Part D: Budget

Prepare a fortnightly budget. Include any additional expenses you identify. Provide explanations for any fortnightly expenses that you need to estimate.

Fortnightly income		Fortnightly expenses	
Net fortnightly pay		Rent	
		Car running costs (fuel, registration, insurance)	
		Groceries	
		Mobile phone bill	
		Electricity/gas bill	
		Entertainment	
		Other	
		Savings	
Total		**Total**	

Part E: Taxation

13. Using your answers from Part A, calculate the total amount of PAYG tax which will be deducted from your pay during the year.
14. Income Tax due:
    a. Using your annual pay from Part A as your Taxable Income, go to the Australian Taxation Office website and use the Simple Tax Calculator to find out how much Income Tax you would be required to pay over the year.
    b. Use the Medicare levy calculator to calculate the Medicare levy payable.
    c. Hence calculate your total Income Tax due.
15. At the end of the financial year, would you be entitled to a tax refund or would you have to pay a tax bill? What is the amount of the difference?
16. Identify some of the tax deductions you might be able to claim in this job.

Part F: Will this be your new job, new adventure?

17. Considering your findings, comment on the affordability of relocating for this job.
18. What are some strategies you could consider in order to make the move more affordable? Are there parts of your budget that could be adjusted?
19. Will you decide to apply for this job and start this new adventure? Outline your reasons for making your decision.

End of assessment task

Use the following booklet to answer the questions and show your reasoning and working.

Part A: Calculating your pay (7 marks)

1. Find a job advertisement for a job similar to the one you have chosen. The job needs to be in another town. (1 mark)

Paste an image of it in this box.

2. Identify and/or calculate the weekly, fortnightly, and annual pay for the job, showing all calculations. If your advertisement does not show the pay use the fair work pay calculator to assist your calculations. (3 marks)

Weeks	Working out	Pay
Weekly (1 week)		
Fortnightly (2 weeks)		
Annual (52 weeks)		

3. Using the fortnightly pay, use the fortnightly withholding amounts table on the ATO website to: (3 marks)

a. determine how much PAYG (Pay As You Go) tax should be **deducted** (taken out) from your pay each fortnight. You will be using the '**with tax-free threshold**' column.

Fortnightly earnings 1 $	Amount to be withheld: With tax-free threshold 2 $	Amount to be withheld: No tax-free threshold 3 $
1492.00	188.00	430.00
1494.00	190.00	432.00
1496.00	190.00	432.00
1498.00	190.00	434.00
1500.00	192.00	434.00

b. calculate your fortnightly pay **after** tax has been **deducted** (taken out).

This is your **net** fortnightly pay that is the pay you get after tax.

Part B: Location (18 marks)

1. Find a rental property near the job you have chosen. (1 mark)

Paste an image in this box.

2. Identify the: (3 marks)

   a. type of property – eg house, unit, etc.

   b. address

   c. weekly rent

3. What is the bond for the property? If it is not given in the ad, the **bond** is usually **four weeks' rent**. Calculate the bond for this property. (1 mark)

4. Include a **map** of the local area. Mark the following features on the map using the following **symbols**: (6 marks)

   a. the rental property 

   b. your new workplace 

   c. the nearest supermarket 

   d. the nearest Medical Centre 

   e. **two** other places of interest to you. 

5. Using an **online map**, determine the **time** it would take to travel by car from your current home to the rental property. Use the pit stop planner to plan rest and refueling times.

   (3 marks)

Journey plan	Journey time
Travel time	
Rest and refueling time	
Total time	

6. You need to give **directions** to a visitor from out of town to go from the **rental property** to the **supermarket. (4 marks)**

   a. record the directions.

   Your directions should include:

   - **directional language** such as: left, right, forwards, backwards.
   - **positional language** such as: between, next to, in front of, behind.
   - descriptive language
   - street names.

Part C: Preparing for the new location (10)

1. Climate data can be found online at the Australian Government Bureau of Meteorology. Create a **climate graph** for your new location using the graph paper provided. There is additional material to assist you at the back of this booklet. For **each month** of the year include: (5 marks)

   - lowest daily **minimum** temperature
   - highest daily **maximum** temperature
   - average (**mean**) monthly rainfall

2. **Describe** what you would expect the **weather** to be like during the **winter and summer** months. Describe the impact this may have on your **lifestyle and activities**. (3 marks)

3. Identify any **clubs** that you could join or **activities** you could participate in if you were to move to this town. (2 marks)

Part D: Budget (7 marks)

Prepare a **fortnightly budget**.

1. Calculate the fortnightly cost of each of the expenses below. Use the convertor table to assist with calculations. (5 marks)

Expenses	Weekly	Monthly	Annual	Fortnightly
Rent	(See Part B, Question 2c)			
Car registration			$600	
Car insurance		$70		
Fuel	$65			
Groceries				
Mobile phone				
Electricity/gas		$55		
Entertainment				
Savings				
Other				

2. Complete the budget below using the **fortnightly costs** you have calculated in the table above. (2 marks)

Fortnightly income		Fortnightly expenses	
Net fortnightly pay (see Part A Question 3b)		Rent	
		Car registration	
		Car insurance	
		Fuel	
		Groceries	
		Mobile phone bill	
		Electricity/gas bill	
		Entertainment	
		Savings	
		Other	
Total		**Total**	

Part E: Taxation (8 marks)

PAYG (Pay As You Go) tax is the tax deducted from your pay **each pay cycle**. This gives an estimation of the annual tax and Medicare levy you will pay.

Income tax is the **annual** tax you will pay based on your income.

Medicare levy is 2% of your taxable income which is paid in addition to your income tax.

Tax due is made up of income tax and Medicare levy combined.

1. Using your fortnightly PAYG tax from Part A Question 3a, calculate the **annual** (yearly) amount of tax you would expect to pay. (2 marks)

Fortnightly PAYG tax

Weeks	Working out	Tax deducted
Annual (52 weeks)		

2. Tax due: (3 marks)

   a. Determine your **income tax** using the Simple Tax Calculator.

   b. Determine your **Medicare levy** using the Medicare levy calculator.

   c. Complete the table to calculate **total tax due**.

Tax	Amount
Income tax	
Medicare levy	
Total tax due	

3. Compare the tax due in Question 2 with the total tax deducted in Question 1. Would you get a **tax return** or **tax bill**? (1 mark)

4. Tax deductions (2 marks)

List possible tax deductions for your job. Estimate the cost and the total.

Tax deductions	Estimation of cost
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
Total	

Part F: Will this be your new job, new adventure? (6 marks)

1. Considering your income and expenses from Part D Question 2, could you afford to relocate for this job? Justify your answer. (2 marks)

2. How could you make the move more affordable? Are there parts of your budget that you could adapt to save money? (2 marks)

3. Will you decide to apply for this job and start this new adventure? What are your reasons for making your decision? (2 marks)

End of assessment task

Mark_____/56

Teacher Comment

Grading guidelines

NRMT element	Aspiring	Achieving	Emerging
interpreting	There is evidence that the identified information has been clearly understood.	A range of relevant information has been identified in order to complete the task.	Some information relevant to the task has been identified.
choosing	A range of efficient strategies and calculation methods have been selected.	A range of appropriate strategies and calculations have been selected.	Some appropriate strategies and calculations have been selected.
applying	Responses demonstrate thorough knowledge of content and deep understanding of course concepts. There is evidence that the student uses technology in a variety of contexts.	Responses demonstrate sound knowledge of content and clear understanding of course concepts. There is evidence that the student uses technology in different contexts.	Responses demonstrate elementary knowledge of course concepts. There is evidence that the student uses technology in familiar contexts.
reflecting	There has been considered reflection on possible budget adjustments that could be made. A decision about taking up the new job has been made with clear justification.	There has been some reflection on possible budget adjustments that could be made. A decision about taking up the new job has been made with some justification.	There has been an attempt to reflect on the budget. A statement about the decision to take up the new job has been made without justification.

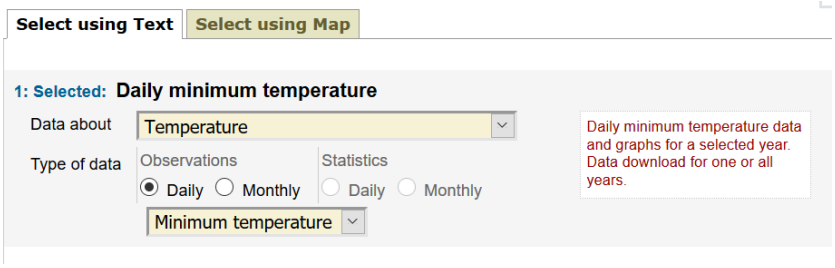
NRMT element	Aspiring	Achieving	Emerging
communicating	Results are communicated using clear explanations that reveal planning and are justified with accurate calculations.	Results are communicated using sound explanations supported by appropriate calculations.	There is an attempt to communicate results using explanations and calculations.

Additional support materials

Visual instructions for Part C

Minimum temperature

1. Data about: select ‘Temperature’
2. Type of data: select ‘Daily’
3. Select ‘Minimum temperature’
4. Add area details
5. ‘Get data’
6. Find ‘Lowest Daily’



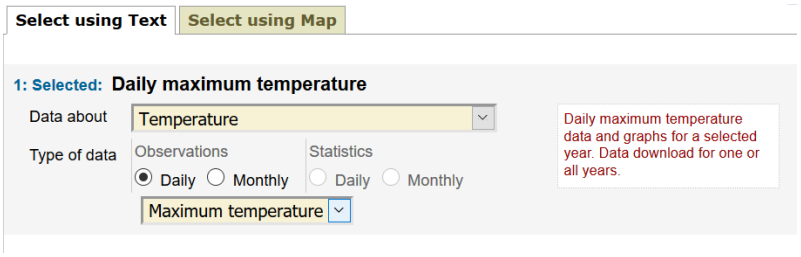
Summary statistics for all years

Move mouse over highest and lowest daily temperature to view dates.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	18.5	17.7	14.8	10.4	6.5	4.4	3.0	3.1	6.0	9.5	13.5	16.0
Highest monthly mean	23.0	19.6	17.2	13.4	9.7	6.7	5.7	6.3	8.7	13.0	17.9	17.9
Lowest monthly mean	14.2	14.5	11.7	6.9	2.8	2.3	0.1	1.2	3.6	7.0	10.1	13.7
Highest Daily	28.6	31.6	23.8	20.2	17.2	14.6	14.0	15.3	20.1	22.4	27.1	28.1
Lowest Daily	5.8	6.3	3.4	-2.2	-4.0	-4.9	-6.0	-4.9	-3.2	-0.4	2.0	4.5

Maximum temperature

1. Data about: select ‘Temperature’
2. Type of data: select ‘Daily’
3. Select ‘Maximum temperature’
4. Add area details
5. ‘Get data’
6. Find ‘Highest Daily’



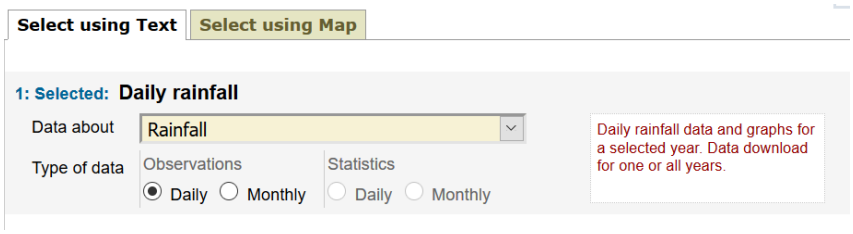
Summary statistics for all years

Move mouse over highest and lowest daily temperature to view dates.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	33.7	32.1	29.1	24.9	20.1	16.4	15.6	17.6	21.4	25.2	28.8	31.6
Highest monthly mean	39.0	36.4	32.6	29.1	21.5	18.4	18.0	20.1	24.2	29.9	34.1	35.8
Lowest monthly mean	28.8	28.1	26.2	21.0	17.9	14.0	13.3	14.9	18.1	21.1	23.7	27.1
Highest Daily	45.0	46.1	39.5	34.4	28.6	24.1	23.1	28.3	35.5	38.1	44.3	44.9
Lowest Daily	20.1	18.5	18.1	10.4	8.5	7.7	7.8	8.6	11.3	12.6	14.2	18.3

Average monthly rainfall

1. Data about: select ‘Rainfall’
2. Type of data: select ‘Daily’
3. Add area details
4. ‘Get data’
5. Find ‘Mean’



Summary statistics for all years

Move mouse over highest daily rainfall to view dates.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	56.1	42.2	63.5	31.4	38.8	48.3	41.5	34.1	41.5	45.6	59.0	58.9
Median	37.4	29.6	37.1	23.5	28.8	35.8	34.1	20.2	31.6	50.6	66.6	47.6
Highest Daily	*74.0*	*77.0*	80.0	*72.0*	*59.4*	*43.0*	*52.0*	*53.0*	*69.0*	*60.0*	*51.0*	*67.6*